

REMARKS

Claims 20-37 are pending in the application. Claims 1-19 were previously canceled. Claims 20 and 30 are the only independent claims.

Claims Rejections - 35 U.S.C. §§ 102 and 103

Claims 20-25 and 30-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over published European patent application document No. EP 118,613 (Vohrer) in view of U.S. Patent No. 6,123,111 to Nathan.

Claims 26, 27, 34 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vohrer in view of Nathan and further in view of U.S. Patent No. 3,977,440 to Phillippi.

Claims 28, 29, 36, and 37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vohrer in view of Nathan and further in view of U.S. Patent No. 5,332,160 to Ruskin.

Claim 30 · Claim 30 has been amended herein to provide a better definition of the invention over the newly cited combination of prior art references.

As set forth in amended claim 30, a multiple layer reinforced flexible hose comprises at least one inner tubular first layer made of extruded plastic material, at least one outer tubular second layer made of extruded plastic material, and a tubular reinforcement made of a textile material interposed between the first and the second layer. The first and the second layer extend over substantially the entire length of the tubular reinforcement and are homogeneously joined in correspondence of their mutual contact surface so as to define a wall having an overall predetermined thickness. An end portion of the wall has an increased thickness along a longitudinal portion of predetermined extent to thereby provide watertight sealing action with external connection organs. The increased thickness is substantially constant along substantially the entire extent of the end portion. The end portion with the increased thickness has a

substantially constant outer diameter and a smooth and continuous outer surface without discontinuities over an entire length of the end portion.

As observed in a previously submitted Amendment, Vohrer, the primary reference relied on by the Examiner, discloses a hose with an end portion of increased thickness where that end portion comprises two sections, a first section (9, 15, 23, 24) of an increasing (varying) thickness throughout and a second section (10, 16, 25, 26) of a constant thickness. Vohrer neither discloses nor suggests an end portion having an increased thickness where that increased thickness is substantially constant along substantially the entire extent of the end portion. The structure of Vohrer is evidently necessary pursuant to the teachings of that reference to enhance flexibility and avoid the risk of local bending and cracking. One of ordinary skill in the art would not consider modifying the structure of the Vohrer hose pursuant to the teachings of Nathan because such a modification would be contrary to the objective of Vohrer to enhance flexibility and avoid the risk of local bending and cracking.

Even if one of ordinary skill in the art were motivated by the cited references to modify the structure of Vohrer's hose pursuant to teachings of Nathan, such a modification would not result in applicant's hose as set forth in amended claim 30. More particularly, one of ordinary skill in the art applying the teachings of Nathan to the hose of Vohrer would provide a hose end structure with multiple sections or segments of different diameters and different thicknesses. Such a hose would have an end portion with an outer surface disrupted by a discontinuity between the segments of different diameter. This is in contrast to applicant's hose as set forth in claim 30 wherein the hose has an end portion with increased thickness, a substantially constant outer diameter, and a smooth and continuous outer surface without discontinuities over an entire length of the end portion.

The Examiner alleges that Nathan discloses in Figs. 1- 4 an outer end of a tube with a stepped thicker portion substantially constant along a longitudinal length of the hose.

More particularly, the Examiner maintains that the outer layer 26 of Nathan covers at least a portion of the reinforced layer 14 and an inner layer 12.

Applicant cannot share this Examiner's interpretation as the outer layer 26 is actually a fitting or a socket piece extending over a short end portion of the hose. The socket member 26 of Nathan has a bead 32 (see Figs. 1, 2) or a coupling portion 35 (see Figs. 3, 4) extending radially outwardly, and therefore this member has neither an outer layer with substantially constant thickness nor a substantially constant outer diameter.

Moreover, the hose structure of Nathan comprises a tubular reinforcement 14 that does not extend along the whole extension of the inner layer 12 and of the outer layer 26 and thus this tubular reinforcement 14 is only partially interposed between these two layers 12, 26.

Additionally, the outer layer 26 and the inner layer are not homogeneously joined in correspondence of their mutual contact surface because the outer layer 26 is joined to the further layer 16.

Even modifying the increased thickness of Vohrer by forming the stepped portion as suggested by Nathan would not result in a substantially constant thickness along the whole extension of the final longitudinal portion as set forth in claim 30 because the final portion of Nathan is not substantially continuous with a substantially constant outer diameter but is instead variously stepped.

Concerning function, Nathan discloses a high pressure hose having a fitting for attachment to a connector member which is capable of withstanding very heavy pressure-induced loads between the hose and the fitting, whereas the presently claimed hose structure is a low-cost hose mainly directed to the gardening field, thus operating at relatively low pressure, which is designed to enhance the watertight connection with external fittings.

The other references are similarly devoid of teaching or suggestion to provide a hose with an end portion of increased thickness, where the thickness is substantially

constant along substantially the entire length of the end portion, where first and second layers extend over substantially the entire length of an interposed tubular reinforcement, and where an end portion with an increased thickness has a substantially constant outer diameter and a smooth and continuous outer surface without discontinuities over an entire length of the end portion.

Claim 20 is deemed to distinguish over the prior art for the same reasons as discussed with respect to claim 30.

Claims 26 and 27 The Examiner rejected claims 26 and 27 as being unpatentable over Vohrer in view of Nathan and further in view of Philippi.

Applicant suspects that the Examiner insists on his misinterpretation of Philippi, because in this prior art a core layer of a hose has a different color from a sheath in order to allow detection of any break under visual inspection (see col. 3, lines 9-15).

In contrast, the outer layer of the presently claimed hose structure is discontinuously colored lengthwise the layer extension in the sense that the pigmentation of the outer layer changes abruptly in correspondence with the change in hose thickness in order to identify where the hose is to be cut.

Thus, the means of identification, the purpose and the result of the color change are quite different in Philippi and the present application

Claims 27 and 28 have been amended to provide a better definition of applicant's invention. Amended claims 26 and 27 are deemed to clarify the abrupt change in color and pigmentation of the outer layer to identify where the hose is to be cut (see in this regard the passage bridging page 8 and 9 of the PCT specification.)

Thus, the above features are directly and unambiguously derivable from the original specification and figures and therefore do not add fresh matter to the original scope of protection.

Conclusion

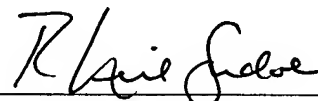
For the foregoing reasons, independent claims 20 and 30, as well as the claims dependent therefrom, are deemed to be in condition for allowance. An early Notice to that effect is earnestly solicited.

Should the Examiner believe that direct contact with applicant's attorney would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the number below.

Respectfully submitted,

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